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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/792,284	03/04/2004	Colin N.B. Cook	2540-0702	3143

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ARLINGTON, VA 22203

EXAMINER
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SITTA, GRANT

ART UNIT	PAPER NUMBER
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2629

MAIL DATE	DELIVERY MODE
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10/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/792,284	<b>Applicant(s)</b> COOK ET AL.	
	<b>Examiner</b> Grant D. Sitta	<b>Art Unit</b> 2629	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 04 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 04 March 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |                                                                                                            |                                                                                         |
|------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "adjusting a plurality of boards of a screen" and "a PLL adjustment cycle" of claims 1-16 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 6, 7, and 8 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
3. Claim 6 In the phrase "capturing two screens and comparing them;" it is unclear what "them" is referring to.
4. Claim 6, it is unclear what "tile color sensitivity" means since "tile color sensitivity" has no readily accepted meaning in the art.
5. claim 8, it is unclear what "real video data" means since "real video data has no readily accepted meaning in the art.
6. Claim 6, recites the limitation "the tile color". There is insufficient antecedent basis for this limitation in the claim.
7. Claim 7, recites the limitation "the image". There is insufficient antecedent basis for this limitation in the claim. Which "image" is applicant referring to?

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

10. Claims 1-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schneider et al (2002/0038334) hereinafter Schneider, in view of McKay et. al (US PUB 6,313,822) hereinafter, McKay.

In regards to claim 1, Schneider discloses the limitations of a host computer (fig.1a (20a-20c)) in communication with a virtual presence server (VPS)(fig. 1a (53)), a remote computer (fig. 1a (12))) in communication with a virtual presence client (VPC) (fig. 1a (12)), on each new screen resolution [0046] that is received by a VPS, (0025-0027))

Schneider differs from the claimed invention in that Schneider does not explicitly disclose adjusting a screen border to correspond with the new screen resolution; identifying whether the adjusted screen border is near an expected location; and if no border is found close to the expected border location, discarding the adjusted screen border and loading a predetermined set of values for the screen border instead.

However, McKay teaches a system and method for adjusting a screen border (fig. 7 (710-770)) to correspond with the new screen resolution (fig. 7 (710-770)); identifying whether the adjusted screen border (col. 11-12, lines 20-29) is near an expected location (fig. 7 (740)); and if no border (col. 10, lines 1-33) is found close to the expected border location (fig. 7 (740)), discarding the adjusted screen border and loading a predetermined set of values for the screen border instead (fig. 7 710-770 (col. 11-12, lines 20-29))

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify Schneider to include the use of establishing video synchronization between the motion video signal and the computer vided signal as taught by McKay in order to modify screen resolution based on available memory as stated in (col. 1, lines 45-67 of McKay).

11. In regards to claim 6, Schneider teaches discloses the method comprising: capturing two screens and comparing them ([0048]); if no acceptable match is found by the comparison ([0048]), adjusting the tile color sensitivity ([0047]) and trying a complete

set of values again [0059-0063]; and if no acceptable match is found again, reverting back to a set of factory settings (table 1),

McKay teaches entering a phase locked loop (PLL) adjustment cycle (fig. 5 (319)) each time a new screen resolution is detected (fig. 5 INT HSYNC and EXT HSYNC); trying a range of PLL values to detect a best value (examiner notes that “best values” is not a limiting term and the function of any PLL is to find the “best values”);

12. In regards to claim 13, Schneider discloses the limitations of a host computer (fig. 1a (20a-20c)) in communication with a virtual presence server (VPS)(fig. 1a (53)), a remote computer (fig. 1a (12))) in communication with a virtual presence client (VPC) at least one from the group consisting of: a system for entering a PLL adjustment cycle, or

McKay a system adjusting a plurality of borders of a screen, to provide image perfection (fig. 7 (710-770)) in the virtual presence architecture on each new screen resolution that is detected (col. 11-12, lines 20-29). Examiner notes there was no need to examine “a system for entering a PLL adjustment cycle” because of the “or”.

13. In regards to claim 2, Schneider teaches wherein the predetermined set of values for the screen border is the Video Electronics Standards Association (VESA) set of standard values [0060].

14. In regards to claim 3, Schneider teaches wherein the adjusting is performed by setting a capture engine to move the screen down and to the right [0062].

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15. In regards to claim 4, Schneider teaches wherein the user is prompted to manually adjust said plurality of borders of a screen corresponding with the new screen resolution. [0062] "In one embodiment of the present invention, the front porch is set manually through user intervention typically through a trial and error process".

16. In regards to claim 5, Schneider teaches wherein the VPA automatically adjusts said plurality of borders of a screen corresponding with the new screen resolution [0062]. "the system of the present invention provides automatic determination of the front porch when a non-black background is used"

17. In regards to claim 7, Schneider teaches wherein if during the screen capturing the captured screens include a number of randomly scattered color tiles above a threshold value, interpreting said tiles as noise and filtering the tiles out of the image [0047].

18. In regards to claim 8, Schneider teaches wherein if during the screen capturing the captured screens have less than a threshold value of difference between each other or if less than a threshold value of color tiles are changing, the changes in the screens will be interpreted as real video data changes [0047].



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19. In regards to claim 9, Schneider teaches wherein step of the trying of a range of PLL values includes the step of capturing two screens and comparing them [0048].

20. In regards to claim 10, Schneider teaches where the step of capturing and comparing takes place on two screens within 25 milliseconds of each other [0048].  
“compare (1) the screen information stored in a first buffer for a previous frame and (2) the screen information stored in a second buffer”. Examiner notes since 58Hz is the lowest value in Table 1 and Schneider teaches comparing a “previous” frame. At least two frames must be compared within every 25 milliseconds.

21. In regards to claim 11, Schneider teaches wherein on a subsequent try of a range of PLL values, a different algorithm is used than on an initial try of a range of PLL values, and further comprising ([0049-55]): examining an area and a number of changes in the color tiles of two screens to determine if the changes are the result of a PLL lock or valid data changes[0044-0047]; and if the changes are a result of a PLL lock, adjusting the PLL parameters ([0049-55] and [0044-47] analyzing digitizer).

22. In regards to claim 12, Schneider teaches wherein the VPA comprises a host computer communicating (fig. 1a (20a-20c)) with a virtual presence server (VPS)(fig. 1a (53)), and a remote computer communicating with a virtual presence client (VPC) (fig.

1a (12)),, the method further comprising: causing the virtual presence server and the virtual presence client to communicate, thus allowing remote access to the host [0011-0013].

23. Claims 14-16 are rejected for the same reasons as claim 13. Examiner notes Claim 14 is dependent on independent claim 13. Furthermore, claim 14, and its dependent claims, rely on "a system for entering a PLL adjustment cycle". Since a "system for entering a PLL adjustment cycle" was not necessary for examination, because of the "or" phrasing, claims 14-16 are rejected for the same reasons as claim 13.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Grant D. Sitta whose telephone number is 571-270-1542. The examiner can normally be reached on M-F 9-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amare Mengistu can be reached on 571-270-7674. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Grant D. Sitta

October 18, 2007

  
AMARE MENGISTU  
SUPERVISORY PATENT EXAMINER